

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

DRAFT

This form is for use in nominating or requesting determinations for individual properties and districts. See instruction in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classifications, materials and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name IBM Building

other names/site number _____

2. Location

street & number 330 N. Wabash

not for publication

city or town Chicago

vicinity

state Illinois

code IL

county Cook

code 31

zip code 60605

DRAFT

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this _____ nomination _____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _____ meets _____ does not meet the National Register criteria. I recommend that this property be considered significant _____ nationally _____ statewide _____ locally.

Signature of certifying official/Title - Deputy SHPO

Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:
Action

Signature of the Keeper

Date of

_____ entered in the National Register
_____ See continuation sheet.

_____ determined eligible for the National Register
_____ See continuation sheet.

_____ determined not eligible for the National Register

_____ removed from the National Register

_____ other (explain):

IBM Building
Name of Property

Cook, Illinois
County and State

5. Classification

Ownership of Property
(check as many as apply)

Category of Property
(check only one box)

Number of Resources within Property
(Do not include previously listed resources in the count)

- private
- public - local
- public - state
- public - Federal

- building(s)
- district
- site
- structure
- object

Contributing	Noncontributing	
<u>1</u>	<u>0</u>	buildings
<u>0</u>	<u>0</u>	sites
<u>0</u>	<u>0</u>	structures
<u>0</u>	<u>0</u>	objects
<u>1</u>	<u>0</u>	Total

Name of related multiple property listing
(enter "N/A" if property is not part of a multiple property listing)

Number of contributing resources previously listed in the National Register

N/A

1

6. Function or Use

Historic Functions
(enter categories from instructions)

Current Functions
(Enter categories from instructions)

COMMERCE/TRADE: Business: Office Building

COMMERCE/TRADE: Business: Office Building

7. Description

Architectural Classification
(Enter categories from instructions)

Materials
(Enter categories from instructions)

MODERN PERIOD: International Style: Miesian

foundation: Concrete
walls: Steel frame/Glass Curtain Wall
roof: Composition: Asphalt
Other: _____

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets)

IBM Building
Name of Property

Cook, Illinois
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing).

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield, information important in prehistory or history.

Areas of Significance
(Enter categories from instructions)

ARCHITECTURE:

Period of Significance
1969-1972

Significant Dates
1969-1972

Criteria Considerations
(Mark "x" in all the boxes that apply)

Property is:

- A owned by a religious institution or used for religious purposes
- B removed from its original location
- C a birthplace or grave
- D a cemetery
- E a reconstructed building, object, or structure
- F a commemorative property
- G less than 50 years of age or achieved significance Within the past 50 years

Significant Person
(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder
Ludwig Mies van der Rohe

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets)

9. Major Bibliographical References

Bibliography (Cite books, articles, and other sources used in preparing the form on one or more continuation sheets) See continuation sheets

- Previous documentation on file (NPS):
- preliminary determination of individual listing (36CFR67) has been requested
 - previously listed in the National Register
 - previously determined eligible by the National Register
 - designated a National Historic Landmark
 - recorded by Historic American Buildings Survey
 - recorded by Historic American Engineering Record

- Primary location of additional data:
- State Historic Preservation Office
 - Other State agency
 - Federal agency
 - Local government
 - University
 - Other
- Name of repository: _____

IBM Building
Name of Property

Cook, Illinois
County and State

10. Geographical Data

Acreage of Property 1.6

UTM Referencés

(Place additional UTM references on a continuation sheet)

1 16 447933 4637616
Zone Easting Northing

3 _____
Zone Easting Northing

2 _____

4 _____

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet)

11. Form Prepared By

name/title John M. Tess, President

organization Heritage Consulting Group date July 15, 2008

street & number 1120 N. W. Northrup Street telephone (503) 228-0272

city or town Portland state OR zip code 97209

Additional Documentation

Submit the following items with the completed form:

Continuation sheets

Maps: A USGS map (7.5 or 15 minute series) indicating the property's location.

A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs: Representative black and white photographs of the property.

Additional items (check with the SHPO or FPO for any additional items)

Property Owner (1)

name Michael D. Barnello, Modern Magic Hotel, LLC

street & number 350 W. Hubbard, Suite 440 telephone (312) 755-9500

city or town Chicago state IL zip code 60610

IBM Building
Name of Property

Cook, Illinois
County and State

Property Owner (2)

name James Hoffman, 330 N. Wabash Avenue, L. L. C.

street & number 77 West Wacker Drive, Suite 3900 telephone (312) 917-4237

city or town Chicago state IL zip code 60610

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, PO Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

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DESCRIPTION OF PHYSICAL APPEARANCE

The former IBM Building (now known as 330 N. Wabash Avenue) is located on Block 2 Parcels B-1, B-2, B-3, and B-4 in the River North neighborhood of the City of Chicago. The building was designed by architect Ludwig Mies van der Rohe in the Modern Movement International style of architecture and was constructed in the years 1969-1972. Embodying the central principles of the Modern Movement, the building is characterized by: straightforward expression of structure, simplicity, restraint, absence of ornamentation, muted color palette, and innovative use of modern materials. It further embodies the International style with its over-all symmetry, steel structure, sleek curtain wall, glass-encased lobby, and the exterior plaza. This skyscraper is 670' tall. Rising fifty-two stories above a two-level basement, the building's symmetrical skeleton is fully expressed on the exterior with vertical I-beams; in the monumental first-story the walls are set back behind the outer piers set within the grid of the building frame.

Setting: The setting is thoroughly urban. The building is located in North Chicago across the river from the commercial center of Chicago. It is rich in historic resources from the twentieth century. Buildings in the immediate area are largely commercial high-rises, built to the lot lines with ground floor commercial and upper floor offices. To the east approximately three-quarters of a mile is Lake Michigan, which forms the city's eastern boarder. To the southeast approximately one mile is Grant Park, a formal park plated in Daniel Burnham's 1909 Plan of City. To the northeast approximately one-quarter of a mile is Michigan Avenue, also known as the Magnificent Mile. The Magnificent Mile is North Chicago's retail corridor and it currently contains the parcels with the highest real estate values in Chicago. Approximately one mile to the north is the 1969 John Hancock Center, a modern tower designed by Skidmore, Owings, & Merrill. Approximately one mile to the south is Mies's Chicago Federal Center, a complex of three federal buildings; its design was complete in 1964 but due to funding problems the complex was not completed until 1974. To the southwest approximately one mile is the 1973 Sears Tower designed by Skidmore, Owings, & Merrill. It was the tallest building in the world until 2007, rising 1,730' in height.

The blocks immediately surrounding the building contain a combination of commercial, retail and residential development. The buildings generally range from mid to high rise with architecture ranging from the late nineteenth century into the early twenty-first century.

To the immediate east of the building across Wabash Avenue is the new under-construction Trump International Hotel and Tower designed by Skidmore, Owings & Merrill. Construction began in 2005 and the estimated completion is scheduled for 2009. It is a glass and steel curtain wall high-rise tower rising 92 stories; it will be taller than the IBM Building. To the immediate north across Kinzie Street is the Wrigley Parking Garage, a mid-rise late twentieth century parking structure. To the

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immediate west across State Street is the 1967 Marina City, two round high-rise apartment towers of cast concrete known for their sculptural design by Bertrand Goldberg Associates.

Site: The IBM Building is positioned on a full city block in the North Chicago neighborhood. The block is bounded immediately to the south by the east branch of the Chicago River. Bounded immediately to the north by E. Kinzie Street, a two-way east-west surface street that submerses to the west under N. Wabash Avenue. Bounded immediately to the west by N. State Street, a two-way north-south arterial street which spans the Chicago River with the 1949 Batan-Corregidor Memorial Bridge. Bounded immediately to the east by N. Wabash Avenue, a two-way north-south street which spans the Chicago River with the Irv Kuppinet Bridge.

The IBM Building is sited on a largely rectilinear parcel with Wabash Avenue curving into the east side. The lot measures approximately 379' east and 475' west and 275' north and 177' south. The parcel consists of 1.6 acres. The base of the parcel is submersed and railroad tracks run through the middle of the site. Above the base the ground level has been built up to create a flat site. The building is situated at the northern portion of the site with a surrounding plaza. At the west is a granite retaining wall which provides a flat ground level with broad granite steps at the north and south corners leading up from State Street. The stairs lead to the plaza, which expands to the north and largely the south and is clad in granite pavers. The open landscape plaza provides views of the river and onto Lake Michigan. At the south the plaza features two raised granite planting beds planted with mid-size trees and two granite benches, a large pylon sign stating the address in the southwest corner, and a bridge house that sits at the southeastern perimeter. The plaza at the east and west is narrow, consisting of walkways that provide access to the building. At the north the plaza features one granite bench with a planting bed planted with mid-size trees. Traditional urban sidewalks surround the building at the north, east, and west perimeters. At the north is a loading area with access provided at the street level.

Structure: The IBM Building is a fifty-two-story steel frame building, rising 670' tall from the plaza level, with a partial basement and partial subbasement. The footprint is prismatic and built to the lot line. The base is separated in two halves due to the railroad lines. The footprint measures 293' along the east and 120' along the north with irregular angles at the south and west. At the ground level the building tower has a rectangular footprint measuring 270' along the east and west by 120' along the north and south. The building is built on a 4 x 14 regular grid of steel support piers that are positioned 30' x 40' apart. The floor to floor height is 26' at the first floor and 13' at the upper floors.

Exterior: The exterior form is expressed in a modular pattern established by the steel structural frame and glass curtain walls creating a glass and steel tower. The tower is bronze in color. The ground floor is inset from the building plain approximately 30' at the north and south and approximately 10' at

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the east and west. The outer piers remain exposed; they are clad in bronzed tinted aluminum panels, creating an arcade around the lobby. The arcade ceiling is clad in pink glass mosaic tiles and has recessed lighting that lines the perimeter edges. The lobby's perimeter wall is clad in large clear plate glass with bronze tinted anodized aluminum frame window system. The openness of the design gives the ground floor a transparent quality when viewed from the street.

A flat bronze-tinted aluminum canopy centered along the east side of the lobby articulates the building's main entrance along Wabash Avenue. The primary entrance is at the east and aligns with the central axis of the building. The entrance contains three bronze tinted anodized aluminum frame glazed revolving doors. There are also bronze tinted anodized aluminum frame glazed revolving doors located at the four building corners. At the northeast entrance a modern double-leaf metal frame glazed automated sliding door has been added to provide ADA access. Along the west wall are two sets of double-leaf bronze tinted anodized aluminum frame glazed doors which are in the central bays of the building. At the north and south the central bays protrude approximately 10' and house the fire-stairs; these bays are clad in tan travertine with central bronze tinted anodized aluminum double doors.

Above the first story, the fifty-one stories of the office tower are uniform in their exterior treatment. The exterior is vertically articulated by uninterrupted steel I-beams that are attached to the window mullions. Horizontally the building is articulated with two wide bands of aluminum louvers cladding the sixteenth and seventeenth floors and the top floors. The fenestration is comprised of bands of single-light anodized aluminum frame windows with bronze-tinted glazing between the projecting steel I-beams. Above and below each window is a flat, bronze-tinted aluminum spandrel panel. At the corners the building's planes meet seamlessly with the corners framed with the I-beams, creating an interesting geometric pattern.

The flat roof is a five-ply built-up roof, covered with tar and gravel with 2" rigid insulation and metal flashing. An asphalt plank walkway provides access around the roof perimeter and the stair tower and equipment shelter at the south.

Interior: The building was constructed to house the IBM mid-west regional offices on twenty floors and speculative office space in the remainder of the building.

The lobby is a large, stark space generally open in plan with a central granite reception desk just off the primary entrance to the east. The floor in the lobby is finished in dark polished granite tiles that extend seamlessly from the matching plaza tiles. The ceiling is finished in the same pink glass mosaic tiles as the arcade ceiling with aligned recess lighting providing light. The central bay of the lobby contains six rectangular shaped bays housing the elevator towers, stairs, and a single escalator providing access to the second floor. These impressive towers are finished in tan travertine panels

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precisely aligned in grain patterns to achieve an impression of a solid travertine tower. The towers are identified by back lit number panels. Each tower contains four bays of elevators along the north and south with the exception of the perimeter bays, which contain only one set of four bays. The elevators are finished in bronzed aluminum doors and frames and the call buttons are highlighted with a bronzed aluminum panel. The interior of the elevator is finished in wood panels with bronzed metal accents. The two central towers also contain the stairs and escalator. The towers are spaced 10' apart with the central towers spaced approximately 30' apart. The lobby also features a commemorative sculpted bust of Mies van der Rohe by Italian sculptor Marino Marini positioned on a pedestal at the east entrance.

Floors two through forty-seven contain the offices and associated support spaces. The floor is 3 bays wide x 9 bays deep. A central core 1 bay wide x 7 bays deep (north-south orientation) on each floor contains the elevator lobby, service elevator lobby, stairwells, utility room, and bathrooms. A 5' wide corridor borders the core to the east and west. Surrounding the core, the remainder of the floor plate is comprised of individual offices.

The elevator lobbies are rectangular in shape with two opposing banks of four elevator cabs. Finishes in the elevator lobbies consist of modern carpet or tile. At the east and the west of each elevator lobby is the initiation of the corridor; at some floors modern doors have been added at this point to enclose the corridor into the tenant space. The walls and ceiling in the elevator lobby are plaster with modern alterations in areas including wood panels, plastic panels, and fabric panels. The elevator doors are aluminum originally finished in a bronzed tint and indicator lights are integrated into the elevator frame. The call buttons were originally surrounded with bronzed aluminum plate covers and bronze aluminum ash trays at the north and south were recessed into the wall; these features have been retained in some lobbies with finishes painted over or they have been removed.

At each floor, the 5' wide corridor is formed by plaster walls and ceiling with drop acoustical tile ceilings in areas. The original doors were aluminum full height doors extending to the ceiling. The corridors have been altered with areas shortened or removed for tenant needs. The floors are clad in carpet, linoleum, or tile.

The individual offices, conference rooms, and support spaces are created by floor to ceiling plaster walls and ceilings with partitions in areas for cubicle office space. These spaces are divided to suit the tenants' needs, typically with large open areas and areas of offices. These spaces were typically finished with plaster, glass, metal with carpet or linoleum flooring, and acoustical tile ceiling. These finishes are modern.

There are three sets of fire stairs located in the central core. The stairs are utilitarian concrete treads and metal risers with a simple aluminum pipe railing and painted concrete block walls and ceilings.

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The service elevator lobby is utilitarian in nature with painted concrete block walls and painted metal finishes.

The second floor contains the building cafeteria which is accessed by the escalator. The escalator is finished with bronzed aluminum framing and glass barrier side panels with metal track and rubber handrail. A bronzed aluminum framed glazed guard rail frames the escalator bays. The escalator lobby is clad in the same tan travertine tiles walls with brown floor tiles. The cafeteria has been modernized and downsized from the original plan. It is located in the northwest center. The finishes for the cafeteria are modern with tile floors, painted drywall, and acoustical tile ceiling. The cafeteria kitchen and service bar are at the north with a large dining area filling the remainder of the space. The remainder of the floor is utilized as office space.

There are five upper floors which contain mechanical rooms and storage. Floors M-1 and M-2 are between the sixteenth and seventeenth floor. Floors M-3, M-4, and M-5 are above the forty-seventh floor. The finishes are utilitarian with concrete finishes. These floors are denoted on the exterior with louver cladding.

The sub-basement contains mechanical equipment rooms, water pump room, storage rooms, and service driving ramp and parking. The elevator lobby is utilitarian with concrete and painted metal finishes. The finishes on this level are utilitarian with concrete finishes.

The basement contains mechanical equipment rooms, generator room, and a garage entrance at the north provides entrance to the loading dock and ramp to lower level. The elevator lobby is utilitarian with concrete and painted metal finishes. The finishes on this level are utilitarian with concrete finishes.

Alterations:

Alterations have been limited to interior upgrades, demolition, and tenant improvements work (including asbestos abatement on certain floors) on the occupied floors associated with leasing and releasing space to tenants in the building. The configuration and materials in the upper office floors have been altered and replaced over the years to suit tenant needs. Original character-defining features such as exterior aluminum curtain wall, exterior glass envelope surrounding the lobby, aluminum-clad structural columns, and canopy at the building's base have been retained. The original materials within the lobby have also been retained. The building continues to express its origins as an example of the International style of architecture and thus retains integrity.

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STATEMENT OF SIGNIFICANCE

The former IBM Building (now known as 330 North Wabash Avenue), completed in 1972 in downtown Chicago, is significant at the local level and fulfills National Register Criterion C as a representative example of the modern movement styles of architecture and more specifically the International architectural style. The IBM Building also meets Criterion Consideration G for its exceptional importance in the area of architecture as one of Chicago's premier examples within the body of work for Mies van der Rohe. The period of significance represents the construction period, 1969-1972.

History of the Resource

IBM initially engaged the firm of Mies van der Rohe Architects in 1966 to build the company's regional headquarters.

The International Business Machines Corporation (IBM) traces its founding to the 1880s. The company originally produced machines for business operations. These machines included the recording clock, which recorded the time when a worker arrived and departed on paper, and tabulating machines, which organized data. In 1944, the company in partnership with Harvard University created the Automatic Sequence Controlled Calculator. This was the first calculator to automatically calculate long computations. By the late 1960s, the IBM Corporation was an international giant, with offices and plants in the United States, Europe, and Asia. In 1968 the company employed 241,974 people, had revenue of \$6.88 billion up 29% from 1967, and net earnings of \$871 million up 34% from 1967.¹ In the Chicago area alone, the company employed 4,500 employees in fifteen locations. At the time IBM was planning the IBM Building the company was a world leader in the computer industry. On June 19, 1968, IBM announced in the Chicago Tribune a consolidation of its Chicago offices in the article titled "52-Story Skyscraper Planned by I. B. M."

"H.W. Miller Jr., an I.B.M. vice president, explained that it will be the largest office building I.B.M. has ever built and that it will rise 695 feet from street level, becoming the city's third highest building after the John Hancock and First National Bank buildings. Miller said nearly all I.B.M.'s Chicago facilities will be consolidated into 50 percent of the building. The rest will be available for rental. Of the 51 stories above the lobby, 46 will be used for office space, two will contain major computer facilities, and the rest will house mechanical equipment."²

¹ *IBM Archives: History of IBM; Timeline*. Retrieved February 21, 2008, from: http://www-03.ibm.com/ibm/history/history/history_intro.html

² "52 Story Skyscraper Planned by IBM", Chicago Tribune, (June 19, 1968) p. 1.

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IBM selected the architect Mies van der Rohe to design the new Midwest regional office. The selection was excellent as Mies's design philosophy of rationality and modernity married well with IBM's clout as a technical innovator. At the time Mies was considered one of the most influential and respected architects in the world. His career of nearly seven decades had produced structures around the world; with a body of work that flowed from his philosophy of "less is more," he had honed his craft into a fine-tuned machine. The IBM Building was the work of a master and the culmination of Mies's career.

At the time of the commission Mies was eighty years old and confined to a wheelchair, but he insisted on being driven to the site. Upon observing the irregular plot of 1.6 acres along the north side of the Chicago River, Mies inquired in a somewhat perplexed tone "Where is the site?" Mies's colleague Bruno Conterato, who was Mies's lead on the project, concurred, stating "The site appeared to us as almost nonexistent. Especially when you consider the extensive program requirements of IBM."³ The site challenges were extensive: railroad tracks run under the site, Wabash Avenue cut into the site awkwardly, and if that was not enough, the site came with an existing agreement with the Sun-Times to provide storage for the newspaper on site. Mies's skill of siting a building exquisitely would rise to the design challenge. The site was reformed first with the realigning of Wabash Avenue, allowing a more natural curve into the east side of the site, the construction of a granite bulkhead along the river that conforms with the angle of the river bed, and bridging the railroad tracks. Mies chose to set his slab at the north end of the site and also parallel to the Chicago street grid, allowing for generous open space facing the river, and engaged Bertrand Goldberg's Marina City towers, two round sculptural towers, to the west and the Sun Times Building (since demolished) to the east. Bruno Conterato said of the site, "By going well back on the site...we in effect set up a line of three towers, since the Marina towers are canted on their site, with the east structure farther north than the west one. This kept us from blocking any more of the view towards the lake than the east tower already does," and more importantly for the IBM Building, "Since we are at the axis of the river, we placed the structure on the north end of our site, enabling us to over look the newspaper's building, and to look down the river, and on out to the lake."⁴

The building is an exceptional example of the architecture of Mies van der Rohe. In its mature form, Mies's typical skyscraper design contained a number of Mies's trademark features; these features reflected the principles of architecture held by Mies and other architects of the Modern Movement. The massing was geometric, a simple rectilinear box rising to a height of 670' above the plaza level. At the time of construction the IBM Building was the third tallest building in the city of Chicago and is the second tallest building constructed by Mies. The underlying structure of the building is clearly revealed with a lightness expressed in the glass and anodized-bronze tinted aluminum curtain walls

³ *Ludwig Mies van der Rohe*. Inland Architect (July 1972)

⁴ Ibid

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that cover its exterior facades. The square structural columns, which are recessed but still visible though the curtain wall and exposed at the base of the building, express the precise rhythm Mies was able to achieve in his designs. A common feature in Mies's high-rise design, the baring of the columns revealed the building's underlying steel framework. The windows of the curtain wall are more tall than wide, expressing verticality and encouraging the onlooker's eye to move skyward. The I-beams extend from the windows and reinforce the verticality of the building; more importantly, they are the ultimate expression of the structural form and a trademark of Mies's.⁵

The masterful use of materials was a hallmark of Mies's work and is evident in the IBM Building. The Miesian skyscraper is formed with steel and glass. To Mies and his contemporary architects of the Modern Movement, steel and glass was the material representation of modern technology and a reflection of the society and times they were designing in. Steel was always used as the main structural material for Mies's tall buildings. For IBM, Mies chose to frame the exterior curtain wall exposed columns in anodized-bronze tinted aluminum. The exterior was a bronze-gleaming box as the glass curtain wall was also tinted in bronze, creating a unified appearance on the exterior.⁶

The lobbies in Mies's skyscrapers typically have tall ceilings and simple yet elegant design, and are always clad in marble, granite, and mosaic tiles. The lobby of the IBM Building embodies all of these character defining features. The height of the lobby is approximately 26' tall but necessary in design to maintain the proportions and rhythms for the overall building. In July 1972, the building was featured in the architectural review journal *Inland Architect*, and Mies's design partner Bruno Conterato, who carried the responsibility of completing the IBM Building after Mies's death, explained the logic of the design in the article.

"...we felt that the lobby's interior dimensions had to be related in scale to the building's total dimensions. We could have attempted to alter the lobby's height, to achieve a perhaps more human scale, but that would have ruined the overall scale of the building. It would have looked like a sawed-off building if we had designed a lobby less high."⁷

The lobby expresses a monumental quality through the sheer size, rising 26' tall, which is interrupted only by the core elevator, escalator, and stairs towers. The travertine marble is laid exquisitely with the touch of a master mason; on the walls of the core towers, each slab is grain cut and laid to match the grain, giving the impression of a continuous piece of marble. Mies was resolute on this style of laying stone which can be seen in all of his structures. "Bruno Conterato...visited the quarries in Rome and made special arrangements to have the marble cut so that it could be installed with its

⁵ City of Chicago. *Chicago Landmarks Designation Report*, (2007).

⁶ City of Chicago. *Chicago Landmarks Designation Report*, (2007).

⁷ *Inland Architect*, July 1972, p. 9.

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horizontal grain perfectly matched.”⁸ Polished pink, black, and tan speckled granite floor tiles and pink glass mosaic tile ceiling complement the sand toned marble that is accented with honey and gray variegation. The glass perimeter walls that envelope the lobby is also a Mies signature, providing an honest view into the logic of the structure. This feature can be seen in Mies’s work as early as 1929 in the German Pavilion at the Barcelona International Exposition. It is a feature that also provides the space with an “organic illumination of the interior,” an ideal coveted by Mies’s contemporary architect Walter Gropius.⁹ The glass envelope also achieves an indoor/outdoor quality at the ground floor level. That is reinforced with the lobby and the plaza being clad in the same granite floor tiles. The lobby is inset from the tower creating an arcade that functions as an intermediary space which reinforces the blur between the interior and exterior. The exposed structural piers frame the tower at the base as the tower dramatically projects at the second floor with the initiation of the curtain wall. The design intent was stated by Conterato;

“The idea was to open up not only the building itself, but the plaza.... We wanted to limit the amount of visual obstruction and cut down the blocked views. All of this tends to lighten the entire area, as well as the building.”¹⁰

Mies’s style is defined by a “...a rectilinear style reliant upon the poetic accentuation of structure and technology.”¹¹ The overall design of the IBM Building is a model of the Miesian style. The IBM Building paramount’s Mies’s earlier buildings because of its numerous technological innovations. Due to the technological nature of IBM Corporation, the company’s technological requirements were unique, the most important of which was temperature and humidity control in the building. Mies’s office partnered with C. F. Murphy, associate architects and engineers for the project. The team developed several sophisticated systems to regulate the building’s interior environment. These systems were featured in the Chicago Tribune in an article titled *IBM Building Designed for Comfort and Beauty* on October 18, 1970.

“The late Mies van der Rohe pioneered the glass curtain wall which has become the symbol of the modern building.... Says Conterato...the glass and metal building enclosure is in keeping with the current technology....The assembly is basically a glass window enclosed in a metal frame to form a panel which also becomes the exterior wall. Each curtain wall should be a further development of the art, says Conterato, and that’s what happened when they planned the 52-story office building for International Business Machines Corporation.”¹²

⁸ *IBM Building Nears Completion of River*. Chicago Tribune (August 29, 1971, p.D1)

⁹ Sigfried Giedion, *Space, Time and Architecture* (Cambridge, MA: Harvard University Press, 1965), 479.

¹⁰ *Inland Architect*, July 1972, p. 12.

¹¹ Curtis, William J.R. *Modern Architecture Since 1900 Third Edition*. (London: Phaidon Press Limited, 1996) p. 188.

¹² *IBM Building Designed for Comfort and Beauty*. Chicago Tribune, October 18, 1970.

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The innovation of this curtain wall began with the glass. The bronze glass is double glazed thermo heat absorbing glass "...to maintain a high level of humidity on the interior. That means more comfort, less static electricity, and healthier conditions." ¹³ The metal frame has also been improved. It has a plastic thermal barrier on the interior which is also known as a polyvinyl chloride extrusion. This barrier mineralizes the heat transfer and interior condensation. The engineers additionally had to find a solution for the driving force of wind against the exterior. Wind force creates an imbalance of exterior and interior air pressures which can result in water being sucked through minute holes in the wall into the offices. Mies's team created small shielded ports in the wall, allowing pressure in these voids inside the wall to correspond to the pressure on the exterior wall, therefore eliminating the danger of water seepage. ¹⁴

"As a backup measure, mainly to guard against improper installation, the engineers put small stainless steel gutters inside the wall which can collect any water that does get thru. The water is drained off into small cups." ¹⁵

In order to ensure the stability of these new wall panel systems, the panels were tested in Florida and in laboratories. This testing ensured that the wall had no water or air infiltration and the barrier could maintain interior conditions at 42 degrees Fahrenheit and 35% humidity when outside temperatures reached 20 degrees below zero. The systems passed these rigid tests. The result created an optimal environment to operate computers, a necessity for IBM. ¹⁶

Carrier Air Conditioning built an innovative heating and cooling machine which reclaims heat given off from the interior sources including the lights and computers to power the system. A Carrier representative explains the process:

"In the winter the device will pick up heat generated in the interior, raise the temperature in a compressor, and use it to warm water-filled coils. Electric boilers will provide extra heat during subzero days and week-ends when the building is empty. In the summer, the machine and two other conventional chillers will provide cool air and remove heat from the building" ¹⁷

Another component of the state-of-the art heating and cooling system was developed with IBM to regulate the building's interior conditions. IBM designed the computer to operate the system that would receive transmission through a weather station installed on the roof, and in turn the computer would respond to the updates by adjusting the temperature as needed. The computer organized the

¹³ Ibid

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Ibid

¹⁷ Ibid

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building into quadrants to enable a response to environmental conditions in each quadrant: an example is that the offices with southern exposure would receive more sun therefore requiring cooling while the northern side with considerable less sun exposure would be heated.

In earlier versions of Mies's steel and glass skyscrapers these environmental control issues were inherent in the curtain wall. In the 860-880 Lake Shore Drive Apartments, Mies's first high-rise apartment building, the curtain wall had single-glazing and exposure of the structural frame. These shortcomings resulted in spaces that were difficult to heat and cool. Additional problems incurred in later buildings included insulation difficulties, water seepage through the walls and seals breaking on the windows resulting in random cloudy glazing, in turn breaking up the building envelope. All of these inherent problems were addressed in the IBM Building. The combination of features comprised the thickest curtain wall constructed up until that point. These improvements of the curtain wall were unprecedented and therefore made the IBM Building design the ultimate expression of the Miesian Skyscraper.¹⁸

Mies would not live to see the completion of the IBM Building. The final plans for the IBM Building were completed in July of 1969. Weeks later on August 19, 1969, Mies passed away. The building was completed as designed by Mies van der Rohe. A noon ceremony dedicated "the last major American building designed by Mies van der Rohe."¹⁹ A formal dedication ceremony was held at the new IBM Building on September 20, 1972; the celebration included a band and fireboat shooting streams of colored water.²⁰ Additionally, an honorary bust of Mies sculpted by Marino Marini was unveiled. Marino Marini (1901-1980) is an Italian expressionist sculptor noted for his equestrian sculptures. The bust remains on permanent display in the building lobby.

Significance – Criterion C

The IBM building is of exceptional architectural significance as an important example of the modern movement style of architecture in the City of Chicago. This building represents the true spirit of the modern movement, a style born of advancements in science and aesthetic departure: new materials and technologies fostered a novel design and the architects produced a building that was free of historical references. The building is the last major commission in the United States of America designed by the twentieth century modernist architect, Ludwig Mies van der Rohe.

Evolution of the Modern Movement

¹⁸ City of Chicago. *Chicago Landmarks Designation Report*, (2007).

¹⁹ Ibid

²⁰ *IBM Building's Architect is Honored*. Chicago Tribune, September 21, 1972.

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The Modern movement is generally defined as the period between 1920 and 1970. The style embodied the twentieth century notion that architecture must look toward the future, eliminating references to historical precedent.

The origins of the Modern Movement can be traced to the late nineteenth century and the development of the Chicago School of Architecture. During the 1880s, a number of high-rise buildings were erected in downtown Chicago. Each had an individual identity, but a shared framework had evolved which became known as the Chicago School. This refers to a group of architects active in Chicago in the late 19th century who promoted the incorporation of new technologies in commercial buildings. Among the distinguishing features of the Chicago School buildings were: steel frame skeleton with masonry cladding, the dominance of the window and the development of the "Chicago window," and the limited application of ornamentation. Chicago style skyscrapers generally assume a traditional tripartite organization with the first story serving as a base, the middle stories forming the shaft, and the upper stories forming the capital – typically embellished and crowned by a projecting cornice. While the steel frame skeleton allowed for the application of any style, most commonly, Chicago School buildings incorporated neoclassical elements in their exterior designs. The decade between 1883 and 1893 marked the most significant period of development of the Chicago School.²¹ Architect and engineer William Le Baron Jenney is credited with founding the Chicago School, and first established the new direction with his Home Insurance Company commission which was constructed in 1884-1885. Other architects associated with the Chicago School were: William Holabird, Martin Roche, Daniel Burnham, John Root, Dankmar Adler, and Louis Sullivan.

In Europe, parallel developments in the field of architecture had evolved, resulting in what became known as European Modernism. In the late 1890s, the impulse for new movements in architecture arose initially from Otto Wagner and Adolf Loos in Austria and later from Mies's colleagues Peter Behrens and Walter Gropius of Germany.²² Germany, a leader in the industrial age, became the center for European modernism. The Deutscher Werkbund (German Work Federation) was a German association of architects and designers founded in 1907 in Munich. The Werkbund was a state-sponsored effort to integrate traditional crafts and mass-production techniques. Among the most notable of the architects that comprised the Werkbund was Peter Behrens, one of Mies's mentors. In his design for the Berlin Turbine Factory, Behrens employed such new materials as steel and glass to create a new solution for industrial architecture.

²¹ Sigfried Giedion, *Space, Time and Architecture* (Cambridge, MA: Harvard University Press, 1965), 367.

²² Sigfried Giedion, *Space, Time and Architecture* (Cambridge, MA: Harvard University Press, 1965), 474-475

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Inspired by Behrens' Turbine Factory, Walter Gropius' design of the Fagus Works (shoe-last factory completed in 1911) expressed a new architecture born of honesty and integrity.²³ In the Fagus Works, the glass and iron walls were cleanly joined at the corners, without the intervention of piers. The piers were set behind the façade so that the curtain wall was fully realized. The role of the exterior wall had become a mere screen, stretched between the structural framework. Gropius had recognized the new potential of iron, glass and concrete, and in his manipulation of those basic elements had created an "organic illumination of the interior."²⁴ Gropius summarized his purpose and motivation behind the modern movement in the following statement.

"Architecture in the last few generations has become weakly sentimental, aesthetic and decorative...this kind of architecture we disown. We aim to create a clear, organic architecture whose inner logic will be radiant and naked, unencumbered by lying facings and trickery; we want an architecture adapted to our world of machines, radios and fast cars,...with the increasing strength of the new materials – steel, concrete, glass – and with the new audacity of engineering, the ponderousness of the old methods of building is giving way to a new lightness and airiness."²⁵ Walter Gropius

Gropius founded the Bauhaus, the common term for the Staatliches Bauhaus, an art and architecture school in Germany that operated between 1919 and 1933. The Bauhaus became one of the most influential currents in Modernist architecture. The Bauhaus operated under three architect-directors (Walter Gropius 1919-1928, Hannes Meyer 1928-1930, and Ludwig Mies van der Rohe 1930-1933). Seeking to create a new architectural style to reflect the new modern age, the Bauhaus led architecture in a new direction, one that united art, craft and technology and emphasized function and mass production while embracing the aesthetic.

The Bauhaus fostered the International Style of architecture, which became the predominant trend in architecture in the 1920s and 1930s. Common characteristics of the style included: simplification of form, cubic forms, honest expression of structure, absence of ornament, incorporation of glass, steel and concrete as the predominant materials, horizontal bands of windows, use of mass-production techniques, machine aesthetic, and acceptance of the automobile. After World War II, the International Style matured into the modern movement, and embraced the new economic, social and political aspects of the mid-twentieth century. Mies's designs embodied the design principles of the International Style and the modern movement.

Ludwig Mies van der Rohe

²³ Sigfried Giedion, *Space, Time and Architecture* (Cambridge, MA: Harvard University Press, 1965), 478.

²⁴ Sigfried Giedion, *Space, Time and Architecture* (Cambridge, MA: Harvard University Press, 1965), 479.

²⁵ Curtis, William J.R. *Modern Architecture Since 1900 Third Edition*. (London: Phaidon Press Limited, 1996) p. 194.

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Ludwig Mies was born in Aachen, Germany on March 27, 1886, to Michael Mies. Ludwig would later adopt his mother's family name van der Rohe. Michael was a master stonemason. He operated a family business of stonecutting, which specialized in carving tombstones. Ludwig would assist his father in the family business, where he learned the craft of a stone mason. He would later use this skill in his architectural career, which is exhibited in the stone application of his signature designs. His schooling began in local trade schools and continued with a furniture design apprenticeship in Berlin in 1905. In short order, Ludwig began working with Bruno Paul, an emerging designer whose work was highlighted in the 1904 World's Fair in St. Louis. It was during this period that Mies received his first commission. In 1906, he designed a home for philosopher Alois Riehl in a Berlin suburb. The house was a stucco-clad building with a steeply pitched side gable roof and eyebrow dormers. Although the house was conventional it was well designed and caught the attention of Germany's premier architect, Peter Behrens.

In 1908, Mies joined Peter Behrens' architectural practice. It was here that he formed his acquaintance with his contemporaries Walter Gropius and Le Corbusier, who both worked for Behrens. These three would become known as the acknowledged leaders of the International Style in the Modern Movement style.²⁶

Peter Behrens was a designer and architect and in 1908 he received a commission for the advertising and architectural design for the Allgemeine Electricitats-Gesellschaft (AEG) Company, a general electric company based out of Berlin, Germany. In 1909, Behrens produced his most famous design for the Turbine Factory in Berlin. The design revealed the massing and structural materials, and clearly articulated the structure and interior space; this was an early example that held the etchings of modern design. The more typical designs coming out of Behrens' office were neo-classical style designs produced for public buildings and private residences. Behrens was a follower of Karl Friedrich Schinkel, an influential German architect of the nineteenth century. Schinkel's buildings were stylistically traditional but in some ways they departed from the traditional, expressing clarity of structure and form. Under Behrens' guidance Mies began to study Schinkel's designs. Although Mies would disdain the traditional styles executed by Schinkel, several features were influential in the progress of Mies's own design philosophy, including the rhythmic quality of the facades created through the use of rows of columns or windows, and the placement of buildings on a raised platform.

Mies's architectural inspirations were varied and his encounter with Dutch architect Hedrik Petrus Berlage would further propel him into modern design. Berlage was considered the father figure of modern architecture in Holland, whose designs were characterized by bold and simple forms.²⁷ Mies

²⁶ Whiffen, Marcus. *American Architecture Since 1780: A Guide to Styles*. (New York: The M.I.T. Press, 1979), p 251.

²⁷ Curtis, William J.R. *Modern Architecture Since 1900 Third Edition*. (London: Phaidon Press Limited, 1996) p. 153.

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encountered Berlage while working in Holland for Behrens. Mies expressed his admiration of the architect's style, saying that he, "...was honest down to the very bone. That is what interested me the most, together the spiritual character that had nothing to do with classicism, or with historicism."²⁸ Early in his career Mies "...identified the characteristics he wished to emulate in the stern and timeless structure of the ninth-century Palatine Chapel in Aachen, in the neo-classical severity of and geometrical precision of Schinkel, and in the planarity and directness in the use of materials of Berlage."²⁹ Mies had grown professionally under Behrens and after three years at his firm Mies was ready to establish his own practice. He worked on his practice a year when in 1914 he was drafted to the German Army, where he served as a supervisor for road and bridge construction. At the close of World War I, in 1918, he returned to his practice. Mies also directed the architectural section of the Novembergruppe, a radical group that hoped to unite the worker with the artist through art, architecture, crafts, and city planning. The postwar environment and architectural movements reinforced Mies's desire to remove all historical references from architecture. A Mies biographer surmised,

"...such a process of abstraction, of paring away superficialities in order to reveal essences, struck Mies as the crucial method of arriving at vital form in the new arts, and apparent purity of geometric form... appealed to him. For geometry seemed the most rational product of abstraction, which was itself a rational mode of creative expression."³⁰

In 1921, he submitted his first entry into the Freidrichstrasse Skyscraper competition. The plan was his first attempt to strip down a tall building to its essential structure and enclose it with a glass curtain wall; the result was a glass prism. Although this early glass skyscraper was never built, it foreshadowed the glass and steel buildings that would revolutionize the modern skyscraper and the urban environment.

In 1926, Mies joined the Deutsche Werkbund, an organization of artists, architects, and industrialists which sought to improve German design and products in order to compete in the world market. It was during this period that Mies was approached by the German government to design the country's pavilion for the Barcelona International Exposition. The completion of this commission marked a turning point in Mies's career; the 1929 German Pavilion was regarded by critics as Mies's European masterpiece and with this he emerged as a world-class architect and designer. The one-story building was simple in form and exquisitely fashioned with a glass curtain wall, lavish polished black onyx, and travertine marble surfaces set with the eye of a master stone mason. The pavilion was sited on a large podium alongside a pool. It was an early example of Mies's free plan and curtain

²⁸ Spaeth, David. *Mies van der Rohe*. (New York: Rizzoli International Publications, 1985), p. 65.

²⁹ Curtis, William J.R. *Modern Architecture Since 1900, Third Edition*. (London: Phaidon Press Limited, 1996) p. 188.

³⁰ Schulze, Franz. *Mies van der Rohe: A Critical Biography*. (Chicago: The University of Chicago Press, 1985) p. 90.

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wall. Also noted in the design was the Barcelona chair and ottoman that Mies designed to furnish the interior.

In 1930, Mies was appointed the director of the Bauhaus. The Bauhaus, founded by Walter Gropius, was an influential design school that combined arts and crafts design. Tensions between the artist community and the Nazi government led to the school's eventual closing in 1933. In 1936, Mies was contacted by John Holabird, a Chicago architect, who was leading a search committee to find a director for the architecture school at the Armour Institute of Technology (now the Illinois Institute of Technology). The committee offered Mies the position. Conditions in Germany were rapidly decaying as the Nazis saw artistic expression as a threat to the regime. Mies remained in Germany until 1938, when he immigrated to the United States of America and relocated in Chicago, Illinois. Ultimately he accepted Armour's offer as the director of the architecture school.³¹ By 1944 Mies had become an official U. S. citizen.

Mies arrived in Chicago as a world renowned architect and designer; in Chicago he would establish his reputation as one of the most influential architects of the modern movement and ultimately become a figurehead for the movement. His first design task in the states was to draw up the school's master plan for the one-hundred-acre campus. The buildings outlined in the comprehensive plan were low-rise, skeletal steel frames, glass curtain wall, and unadorned brick; these buildings flowed seamlessly with the campus site. The highlight of this building collection is Crown Hall. Considered one of the defining structures of twentieth century modern architecture, the building's structurally expressive form created an open interior space that was easily adapted for the school's changing needs. The building also features exposed steel trusses and I- beams that would become one of his trademarks. Mies continued as the school's director until 1958.

Mies continued his private practice in America. The two and a half decades following World War II were the most prolific of Mies's career. In this period he was able to execute his ideals of form and structure. In cooperation with local developer Herbert Greenwald and other important patrons, Mies began to transform the Chicago landscape. It was during this period that Mies produced some of his most innovative structures, including the 860-880 Lake Shore Drive Apartments in Chicago (1951), the Farnsworth House in Plano, Illinois (1951), and the Seagram Building in New York City (1958). Mies produced buildings around the world, but Chicago has an impressive collection of his designs, including over twenty buildings for the ITT campus, fourteen apartment buildings, three buildings that comprise the Federal Center, and two corporate office towers, one being the IBM Building. Mies's office was flooded with commissions for buildings ranging from use as corporate, government, educational, and residential. In 1969 Mies went into partnership with Joseph Y. Fujikawa, Dirk Lohan,

³¹ Sawyer, June Skinner. *Chicago Portraits: Biographies of 250 Famous Chicagoans*. (1991)

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and Bruno Conterato and changed the name of the firm to the Office of Mies van der Rohe. Up until his death Mies remained vitally active as the firm's principle.³²

At the age of eighty-three Ludwig Mies van der Rohe passed away on August 19, 1969, in Chicago. His remains were interred in Chicago at Graceland Cemetery. With Mies's death, the remaining partners continued to function under the firm name until 1975, when it came to be known as Fujikawa, Conterato, Lohan & Associates. This partnership was comprised of Mies's partners, all of whom embraced Mies's vision and sense of aesthetic. It was this successor firm that carried the responsibility of executing Mies's design for the IBM Building.

Since the IBM Building's completion it has received praise from the architectural community. It was featured in the architectural review magazine *Inland Architect* in July 1972. A decade later it was featured in *The Chicago Tribune* article titled, *Panel Settles on 5 Nominees for Landmarks of Tomorrow*. The IBM was selected as one of five nominees to be a modern landmark. Ira Bach, chairman of the Chicago Landmarks Commission, said of the IBM Building, "This was Mies' last building, and, I think, his finest...It's superb proportioned tower with precisely detailed curtain walls that achieves an elegant simplicity."³³ Most recently the building was designated a Chicago Landmark in 2008, exhibiting the importance of the building to the City of Chicago.

The Miesian Style

Architectural historian Marcus Whiffen defines Mies's professional evolution and the creation of the Miesian style.

"Mies's personal development of (and away from) the International Style began with the buildings of the Illinois Institute of Technology in Chicago, where he was appointed Director of Architecture soon after his arrival in America. The International Style architects, including Mies himself ..., exploited the freedom of plan and elevation that skeleton construction, by relieving walls of their structural duties, makes possible. In Mies's American work, on the other hand the frame provides discipline, comparable in some respects with that of the classical orders, within which expressiveness is achieved through the refinement of proportion and detail. Another basic difference is due to Mies's relatively low evaluation of use as a determination of the plan. International Style buildings contain various spaces that are individualized, at least in

³² City of Chicago. *Chicago Landmarks Designation Report*, (2008).

³³ *Panel Settles on 5 Nominees for Landmarks of Tomorrow*, Chicago Tribune March 7, 1982.

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theory, according to functional requirements; in Mies's buildings the larger spaces, at least are of a generalized or "universal" nature that renders them adaptable to various functions."³⁴

Most of the buildings Mies designed during the American stage of his career can be put in one of two categories. The first category was the free plan structure; an early illustration is Crown Hall on the campus of IIT. The second category was the rectilinear, glass and steel tower; an early example is the apartment buildings at 860 and 880 Lake Shore Drive in Chicago. This is the category that the IBM Building falls in. Although critics argued that his pattern of work was obtuse and redundant, creating void glass boxes with no character, Mies and his followers viewed the style as a deliberate evolution toward a universal ideal of structure. Franz Schulze explains Mies's design philosophy: "...solutions are better developed than invented and that the best idea is one basic enough to permit not only its application to a variety of functions but its refinement in the course of logical development."³⁵ Considering the skyscraper through Mies's logic, the IBM Building can be considered as the direct result of preceding designs such as the Seagram Building in New York City, and one can appreciate the advancement of the form through refinement of the concept of the glass and steel skeleton and technological innovations that make the IBM Building distinctive.

All of Mies's high-rise buildings were constructed during the American period of his career. Although, as a young architect in Germany, he had designed some conceptual skyscrapers, which laid foundation for the concept of the Miesian skyscraper. In 1921, he submitted his first entry into the Freidrichstrasse Skyscraper competition. The plan was his first attempt to strip down a tall building to its essential structure and enclose it with a glass curtain wall; the result was a glass prism. Mies described this skyscraper concept in *Frulicht* magazine:

"Only in the course of their construction do skyscrapers show their bold, structural character, and then the impression made by their skeletal frames is overwhelming. On the other hand, when the facades are later covered with masonry this impression is destroyed and the constructive character denied, along with the very principle fundamental to the artistic conceptualization."³⁶

Mies clearly had a vision of revealing the honesty of a structure. Although this early glass skyscraper was never built, it foreshadowed the glass and steel buildings that would revolutionize the modern skyscraper and the urban environment.

³⁴ Whiffen, Marcus. *American Architecture Since 1780: A Guide to Styles*. (New York: The M.I.T. Press, 1979), pp 251-252.

³⁵ Schultz, Franz. *Mies van der Rohe: A Critical Biography*. (Chicago: The University of Chicago Press, 1985) p. 301.

³⁶ Schultz, Franz. *Mies van der Rohe: A Critical Biography*. (Chicago: The University of Chicago Press, 1985) p. 100.

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It was not until thirty years later and on another continent that Mies would have the opportunity to build his concept of a glass and steel tower. Chicago developer Herbert Greenwald commissioned Mies to build twin apartment towers. The apartment buildings at 860-880 Lake Shore Drive in Chicago were the first buildings constructed in Mies's prototypical Miesian style. These two identical twenty-six story towers revealed the skeletal steel structure in a glass rectilinear form. It was in this project that Mies established the hallmark features of his high-rise structures; these features were the rectangular massing, the recessed glass-enclosed lobby, ground floor arcade, revealed structural columns at the base, and the vertical I-beams extending up the face of the glass facades. This early form had the glass windows integrated into the structure. "Deceptively simple in appearance, these twin apartment towers set the standard by which all subsequent glass-and-steel high-rises are judged."³⁷ These buildings represented a departure from the pre-war masonry skyscrapers into the Modern Movement.

The next evolution in Mies's glass and steel towers would come in 1954, when Mies was approached by Joseph E. Seagram to design a headquarters office tower for the Seagram Company in New York City. The Seagram Building represented a new use for the Miesian skyscraper as an office tower. The design was based off of the prototype used for the apartment towers at 860-880 Lake Shore Drive, though the form had been refined. Architectural historian Carol Willis describes this new form, steel framed office buildings with glass curtain wall:

"The steel-and-glass apartment building now evolved a stage further to produce a new type of office building, a type which has set a trend all over the world. The remarkable skill with which he handles the steel-and-glass skeleton allows Mies van der Rohe to display his mastery in the rhythmic patterning of the façade and the use he makes of his materials."³⁸

The Seagram Building was the first illustration of how well Miesian glass and steel high-rise portrayed the image of corporate dominance in urban areas during the modern movement. The period after World War II was one of economic boom for corporate America and companies like Seagram wanted their headquarters to reflect their power and importance as well as demonstrate their willingness to embrace the new modern era. Much of the success of the Seagram Building has been attributed to the siting of the building, with its generous setbacks, its elegant proportions, and the unique treatment of the exterior with tinted glass and bronze I-beams and spandrels (the Seagram Building was the first bronze colored skyscraper). Mies's design for office buildings had these hallmark features: curtain wall, vertical I-beams, siting on a spacious plaza, glass lobby, monolithic massing, rich materials and elegant detailing.

³⁷ Chicago Landmarks, *860-880 Lake Shore Drive*. <http://www.cityofchicago.org/landmarks/numbers/860880LSD.html>.

³⁸ Willis, Carol. *Form Follows Finance: Skyscrapers and Skylines in New York and Chicago*. (New York: Princeton Architectural Press, 1995) p. 144.

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By the 1960s, the Miesian skyscraper had become synonymous with the skyscraper and the modern movement as the new representation of the corporate office building around the country. Mies had also reached an unprecedented point of success in his career with commission around the world. Unfortunately, by this time Mies was experiencing failing health due to his advanced age; his arthritis left him confined to a wheel chair. These health issues led him to form the partnership with Joseph Y. Fujikawa, Dirk Lohan, and Bruno Conterato and take on a supervisory role. During this period the office produced substantial commercial and public projects including the Dominion Centre in Toronto, One Charles Centre in Baltimore, and the IBM Building.³⁹

The IBM Building embodies the philosophy of architecture developed by Mies over his entire career and was the final and best refinement of the Miesian form. This lifetime culmination is demonstrated in the IBM Building as an archetypal example of the Miesian form. The building exhibits all of Mies's design hallmarks: rectilinear massing, steel structure, precise proportions, sleek curtain wall, vertical I-beams, glass encased lobby, and sited precisely with a surrounding plaza. It advanced the form technologically. The technology was unprecedented at this time with an improved curtain wall and mechanical systems that represented an early form of energy conservation. "Some critics would later condemn Miesian architecture for its sterility and lack of humanity. Mies argued that architecture should mirror its particular culture and milieu. Thus his work in large part reflected the twentieth century obsession with technology and industry."⁴⁰ The culmination of his career and this ideal are married in the IBM Building.

IBM Building as an Example of the Modern Movement

The IBM building is an important example of the modern movement in Chicago. The building expresses the central principals of the modern movement including: interrelationship of proportion and structure, awareness of setting, vertical emphasis, simplicity and restraint, innovative use of modern materials, truth in materials, and expression derived from structure rather than ornament.

In the exterior design, awareness of setting is evident in the sensitive positioning of the building with its generous setbacks from the river to preserve the vista of surrounding towers out to Lake Michigan. The building's proportions are clearly dictated by structure. Structural elements are fully expressed, reflecting the notion of truth in materials. Every element of the exterior serves a function - form follows function - and there is an absence of applied ornamentation. The sleek verticality of the expressed skeletal form best exemplifies the notion of elegant simplicity. Finally, the innovative

³⁹ City of Chicago. *Chicago Landmarks Designation Report*, (2007).

⁴⁰ Sawyer, June Skinner. *Chicago Portraits: Biographies of 250 Famous Chicagoans*. (1991)

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advancement of the curtain wall and mechanical systems express the basic fundamentals of the modern movement.

The elements of the building's exterior that best represent the modern movement style include:

- Straightforward expression of structure and materials as demonstrated by the steel and glass skeleton on the upper floors and the exposed structural piers on the ground floor.
- Innovative use of materials including: plastic thermal barrier, double-glazed windows, anodized aluminum, and a pioneering system for environmental controls.
- Concern for energy efficiency as demonstrated by the sophisticated environmental control system.
- Absence of ornamentation.
- Warm muted color palette which exemplifies restraint.

Modern movement buildings in Chicago of this era include the 1969 First National Bank Building, designed by C. F. Murphy Associates in partnership with Perkins and Will. Constructed as the headquarters of the First National Bank of Chicago, this sixty-story tower is known for its curved form. Located at Madison Street between Dearborn and Clark it is approximately seven-eighths of a mile south of the IBM Building. The granite and steel tower is cast in light buff colored protruding granite piers with contrasting shafts of dark tinted fenestration balanced with horizontal granite spandrels. The base of the building has a large foot print that curves into a narrow tower as it rises. A sunken plaza was added in 1972 which features a large water feature and multiple levels of seating. This granite and glass tower is a unique expression of the modern movement as it adds a sculptural value to these typically rectilinear materials. The 1974 Standard Oil Building (currently known as Aon Center) was designed by Edward Durell Stone and Perkins and Will. It is located at 200 East Randolph Street and is approximately a half mile southeast of the IBM Building. Constructed as the corporate headquarters for the Standard Oil Company, this eighty-story tall building at the time of completion was the tallest marble clad structure in the world. This late modern style office building features the clean lines of modernism executed with stone. This building was vertically articulated through vertical bands of white marble reentrant corners (since replaced with white granite), and the absence of horizontal features. Of Chicago's collection of modern movement buildings from this era, the John Hancock Center is the most comparable to the IBM Building. Constructed as a mixed use development it includes retail, office, and residential. Completed in 1970 it was designed by Skidmore, Owings, and Merrill. Located at 875 North Michigan Avenue it is approximately seven-eighths of a mile north of the IBM Building bordering commercial and residential neighborhoods. It is 100 stories and a soaring 1,145 feet tall. The building is a glass and metal tower with the elements tinted black. The structure is expressed through the full-height protruding metal piers and innovative diagonal cross braces that run across the facades. These diagonal braces were necessary due to the height of this massive tower. As the tower rises it evenly tapers and seemingly lessens in

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massiveness. The building is also sited with a sunken plaza to allow a setback in this dense urban setting. The architects, Skidmore, Owings and Merrill, were followers of Mies and the skeletal design of this tower is considered a salute to Mies.⁴¹ This building is an example of the influence of Mies's architecture and how architects were evolving the modern movement style, exploring new ways to express the simplicity of structure.

IBM Buildings in the United States

IBM has constructed many buildings in the United States to suit its large and varied operational needs. The types of buildings completed include worldwide headquarters, regional headquarters, corporate office buildings, division office buildings, and manufacturing plants. IBM typically contracted well regarded modernist architects such as I.M. Pei and Philip Johnson to design these modern buildings. The IBM Building in Chicago is in the category of a regional headquarters for the data processing division. The Chicago IBM Building can be compared to the 1964 regional headquarters in Seattle, Washington, and IBM's 1983 world headquarters in New York City, each of which are examples of the progression of office buildings in the modern movement architecture.

The IBM Building in Seattle was completed in 1964 and designed by Minoru Yamasaki & Associates and NBBJ. This twenty-story office glass tower features full-height cast concrete vertical fins that project over the fenestration. The ground floor is distinguished with cast concrete arches at the perimeter that reveal the glass-enclosed base. This early modern movement office tower differs from Mies's IBM Building in style and material. The cast concrete fins conceal the structural elements of the building rather than highlight them. The cast concrete gives the Seattle building a sculptural quality to the tower whereas the glass and metal Chicago tower features the elegant simplicity of the skeletal frame of the tower.

The world headquarters building in New York City (from 1983-1994) was designed by Edward Larrabee Barnes Associates. Completed in 1983, it is an example of late modernism. A wedge shaped structure, it is clad in polished black stone which gives this 43-story high tower a visual heaviness. This late modern office tower differs from Mies's IBM Building in style, exemplifying the evolution of modern architecture. It specifically differs from the Chicago IBM Building because of the visual emphasis on the building's sheer mass rather than the skeletal and vertically emphasized Miesian tower.

Comparison of these IBM office towers which span three decades demonstrates IBM's commitment to remaining on the forefront of technology, expressing this through modern architecture.

⁴¹ *The Sky's the Limit: A Century of Chicago Skyscrapers*. Rizzoli International Publications (New York: 1992), p. 213.

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The IBM Building Design within the Context of Mies van der Rohe's Body of Work

In review of Mies's own body of work, the significance of the IBM Building is apparent. More so than any other of Mies's projects, the IBM Building incorporates technologically progressive elements that serve both practical and aesthetic purposes. The IBM Building commission marked a pinnacle in Mies's career, his final building in the United States, a demonstration that embodied the archetypal example of the Miesian Skyscraper incorporated with technological innovations in construction and mechanical systems to hold the computer technology operations of the IBM Company. The IBM Building exhibits all the features of a Miesian skyscraper with rectilinear massing, steel structure, sleek curtain wall, revealed skeletal construction, vertical I-beams on the exterior, glass encased lobby, and surrounding external plaza.

Of all of Mies's projects, IBM bears the greatest similarities to the Seagram Building. The juxtaposition of the Seagram Building as earliest example of the Miesian office tower to the IBM Building as the final example of the Miesian office tower exhibits the refinement of the form.

The fame of the Seagram Building in the 1960s was matched by the IBM Building in the 1970s. This steel skeleton framed skyscraper, headquarters of the Seagram Liquor Company, established the basic form of the corporate tower for years to come, while the IBM Building exhibited the pinnacle of the form with the embodiment of innovative technology. Like the Seagram Building, the curtain wall tower is not built to the edge of the site. Unlike the Seagram Building, Mies incorporates the Chicago River as the water feature, where the Seagram Plaza has two reflecting pools. The plaza in both instances is an expensive aesthetic and a symbolic gesture, especially significant in the dense urban environment which surrounds it. Both buildings exhibit a monumental simplicity, expressed structural frame and rational use of repeated building elements. The buildings both embody Ludwig Mies van der Rohe's guiding principles "structure is spiritual" and "less is more." Following these premises, the Seagram and IBM Buildings are meant to confirm Mies's assertion that when modern industrialized building technology is truthfully expressed, architecture becomes transcendent. Mies's and the modern movement's emphasis on technology is what elevates the IBM Building in Mies's body of work. The innovations of the curtain wall which addressed and solve the inherent flaws of penetration and energy conservation surpass the earlier form. The environmental control systems made possible by the building's owner, International Business Machines, definitely surpassed earlier systems. The IBM Building exhibits the ideal synthesis of art, design, and technology in Mies van der Rohe's body of work.

The bulk of Mies's work in Chicago falls into two categories: apartment buildings and academic buildings. Out of his body of work Mies only completed two office buildings in the City of Chicago.

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The Federal Center is the other office design in the City of Chicago. This office complex plan was commissioned by the General Services Administration, and it called for three office towers sited asymmetrically on a super block. The complex was designed by a team of architects led by Mies van der Rohe, along with Schmidt, Garden, and Erickson, C.F. Murphy Associates, and A. Epstein and Sons. The project began in 1959 with the first tower completed in 1964, but due to funding problems, the complex was not completed until 1975. Due to the drawn out process the plan went through numerous changes prior to its completion. These towers are the metal and glass skeletal design that is the trademark of a Miesian design. The buildings vary in height and mass but the lobbies were designed at the same height to give the complex visual unity from the ground plane. This design stands apart from the IBM Building as a collaborative design of a complex that was not completed to Mies's original plan.⁴² Additionally, the IBM Building stands apart as the last and largest pure Mies office building in Chicago and the United States.

List of Mies van der Rohe works completed in Chicago

Academic Buildings:

Illinois Institute of Technology Master Plan and Buildings 1939-1958. Mies conceived the master plan and designed thirty-five buildings for the campus.

Social Service Administrative Building, University of Chicago, 1965. Academic building located on 60th Street at the University of Chicago.

Apartment Buildings:

Promontory Apartments, 1946-1949. Apartment Building located at 5530 S. Shore Drive.

Algonquin Apartments, 1948 & 1951. Apartment Buildings located at Cornell Avenue at Hyde Park Boulevard and E. End Avenue.

Esplanade Apartment Buildings, 1956. Apartment Building located at 900-910 Lake Shore Drive.

Commonwealth Promenade Apartments, 1956. Apartment Buildings located at the corner of Diversey and Sheridan Road.

⁴² Graham Resource Center at Illinois Institute of Technology, *Mies Chronological Listing*.
<http://www.gl.iit.edu/grc/mies/workchrono.htm>

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2400 Lakeview Apartments, 1963. Apartment building located at 2400 Lakeview Drive.

Institutional Building:

The Arts Club of Chicago, 1951. Institutional Building located at 109 E. Ontario Street. Mies designed the interior space for the exhibits.

Office Buildings:

Chicago Federal Center, 1959-1975. Office Building located at 230 S. Dearborn Street in the Loop approximately one-mile south of the IBM Building.

IBM Building, 1971. Office building located at 330 N. Wabash and the last Mies project located in Chicago.

Criterion G – Properties that have Achieved Significance within the Last Fifty Years

The IBM Regional Headquarters is an exemplary modern era resource as an example in the modern movement International style of architecture in Chicago and within the body of work of Mies van der Rohe. Throughout Mies's career, he pursued clarity of structure and an honesty of materials that was intrinsic to the modern movement. The IBM Building captures the structural honesty that is inherent to his design philosophy and is the pinnacle to his career. It is also the final work of modernist architect Mies van der Rohe in the United State of America. While completed within the past fifty years, the IBM Building meets National Register Criterion Consideration G for its exceptional architectural importance on a local level.

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IBM Building
Name of Property

Cook, Illinois
County and State

NPS Form 10-900-a

OMB Approval No. 1024-0018

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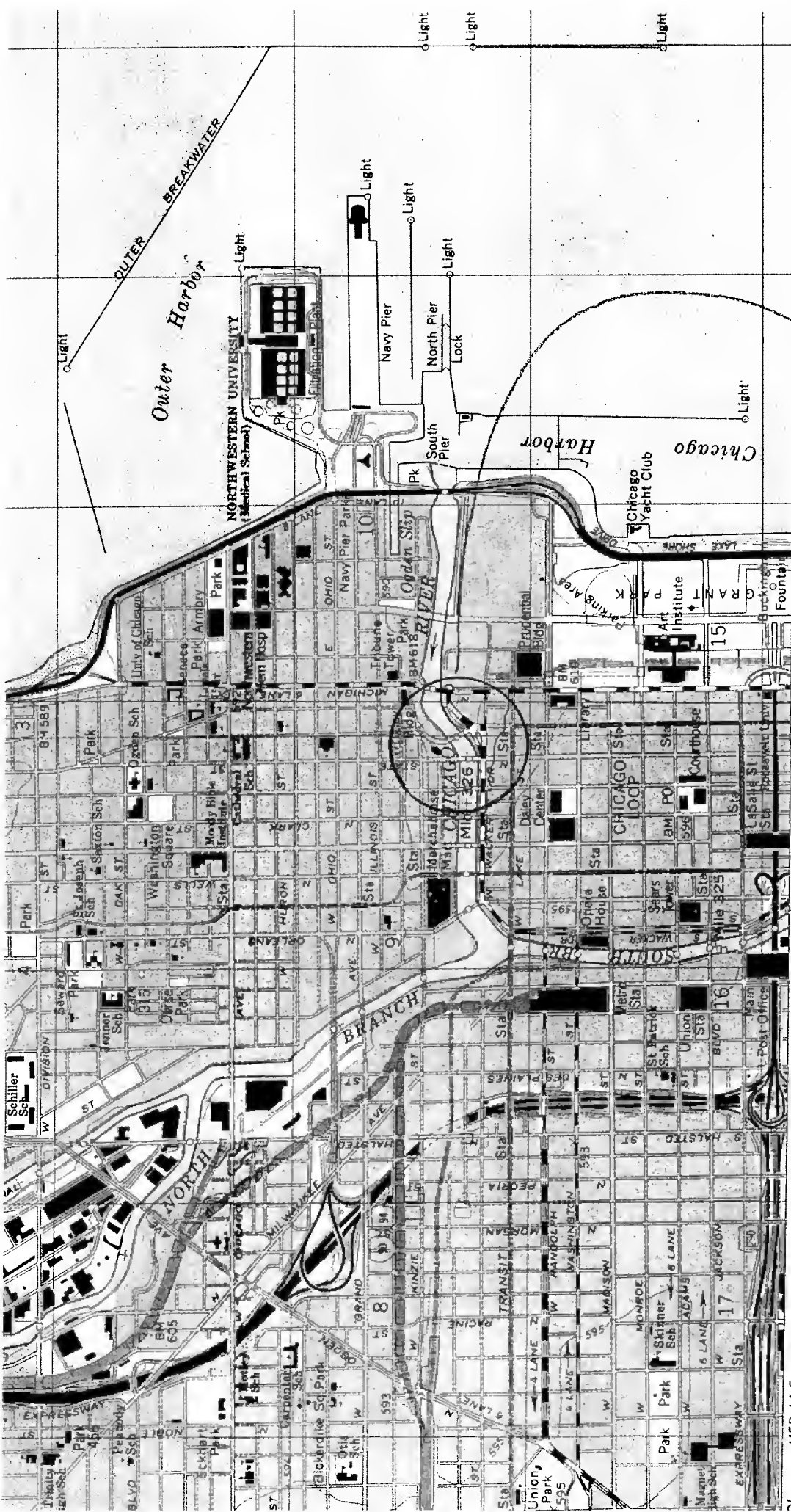
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VERBAL BOUNDARY DESCRIPTION

The IBM Building is located on Block 2 Parcels B-1, B-2, B-3, and B-4 in Kinzie's Addition to the City of Chicago, Cook County, Illinois.

BOUNDARY JUSTIFICATION

The boundary is the original and legally recorded boundary lines for the property for which National Register status is being requested.



BM Building
Chicago, Cook County, IL

(JACKSON PARK)
34671 SE

ROAD CLASSIFICATION

- Primary highway, hard surface ————
- Light-duty road, hard or improved surface ————
- Secondary highway, hard surface ————
- Unimproved road ————
- Interstate Route ————
- U. S. Route ————
- State Route ————

CHICAGO LOOP, ILL.

1997

NIMA 34671 NW—SERIES V863



QUADRANGLE LOCATION

445R 14 E 446 447 449 450 451000mE

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1999

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